

5.0 SUMMARY COMPARISON OF ALTERNATIVES

5.1 COMPARATIVE DESCRIPTION OF ALTERNATIVES AND EFFECTS

NEPA requires a comparative analysis of project alternatives to provide the basis for the choice that is to be made by the decisionmaker and to define the issues for the public (40 C.F.R. section 1502.14). CEQA similarly requires a comparison of the alternatives with the proposed project (14 C.C.R. section 15126.6[d]). This section compares the alternatives that have been analyzed in this EIS/EIR. The comparison of impacts is summarized in Table 5.1-1, located at the end of this chapter. Section 5.2 compares the action alternatives to no action.

The proposed action (Alternative 1) has the potential to cause impacts to environmental resources, as described in Chapter 3. Many of these potential impacts would be caused by construction activities, such as grading required to establish the proper topography for growing riparian vegetation or to develop backwaters and marsh land cover. Once the habitat has been established, ongoing maintenance activities would not significantly impact most resources. Potential construction-related temporary and less than significant impacts have been identified for aesthetics, biological resources, hazards and hazardous materials, hydrology, geology, and transportation. Construction also could result in significant impacts to agricultural resources, air quality, biological resources (associated with backwater creation), cultural resources, and noise. Additionally, construction would result in temporary environmental justice impacts (associated with air quality and noise) and transboundary impacts (associated with air quality). It also could result in long-term changes to ITAs. Mitigation measures have been identified that would reduce most of the potential significant impacts to a less than significant level. (Impacts to aesthetics, hazards and hazardous materials, hydrology, ITAs, geology, transboundary impacts, and transportation do not require mitigation, nor do some impacts to air quality and biological resources.) Depending on the characteristics of specific conservation sites and construction methods implemented, there may be significant temporary impacts to air quality and associated impacts to environmental justice that cannot be avoided.

Potential impacts that may result from the maintenance and monitoring of the conservation sites after construction is completed and from implementing other conservation measures are either less than significant or can be mitigated to be less than significant, with the exception of air quality impacts from the largest prescribed burns and associated environmental justice impacts.

No significant long-term operational impacts have been identified for the proposed action with the exception of potential noise impacts from pump operation and associated environmental justice impacts. The potential long-term effects to agricultural resources, land use, environmental justice, and socioeconomics would be less than significant. Furthermore, the proposed action would result in long-term beneficial impacts on biological resources, aesthetics, and water quality.

The no action alternative (Alternative 2) is assumed to include many of the same conservation measures as the proposed action. These measures would be implemented on a case-by-case basis as required to mitigate the effects of covered actions that are undertaken by the various agencies. Although the construction, maintenance, and operation of these individual

1 conservation projects have the potential to cause impacts that are similar to those of the
2 proposed action, there would be differences in the scope of those impacts. In the absence of a
3 coordinated conservation program, the individual conservation projects are likely to be smaller
4 and more widely scattered. It also is likely that conservation would focus only on listed species,
5 thus reducing the total amount of conservation area that would be created.

6 These factors may reduce the effects on agricultural resources, land use, environmental justice
7 (loss of agricultural jobs), and socioeconomics below those caused by the proposed action.
8 However, there would likely be similar levels of impacts to aesthetics, air quality, cultural
9 resources, and transportation. The potential for significant air quality and associated
10 environmental justice impacts would still exist, even with adoption of mitigation measures,
11 depending on the location and size of the conservation projects. Although less than significant,
12 impacts would likely be greater than those caused by the proposed action for hazards and
13 hazardous materials and noise because of the increased number of individual projects involved
14 and the greater likelihood that the conservation sites would be located closer to developed areas
15 near existing facilities used in implementing the covered actions. The no action alternative
16 could include conservation in the off-site conservation areas. To the extent that this occurred,
17 short-term impacts on environmental justice associated with air quality and noise, ITAs, and
18 transboundary impacts would be reduced because these impacts would not occur in the off-site
19 areas.

20 More importantly, the no action alternative would provide fewer benefits to biological
21 resources, along with reduced benefits to aesthetics and water quality. In the absence of a
22 coordinated program with the capacity to develop large blocks of conservation area, the
23 multiple individual mitigation sites that would be developed under this alternative would be
24 smaller, with greater edge areas proportionate to their size, and are less likely to be located in
25 proximity to existing occupied habitat. These factors would reduce the effectiveness of the
26 mitigation sites as compared to the conservation measures in the proposed action.
27 Furthermore, the absence of a coordinated monitoring and adaptive management program for
28 the individual projects would reduce their likelihood of success in providing the benefits for the
29 biological resources that would result from the program proposed for the LCR MSCP. Impacts
30 to native fish species along the Virgin and Muddy rivers also could occur under this alternative,
31 however, which would represent a greater impact to biological resources than identified for the
32 proposed action.

33 Overall, under the no action alternative, the short-term, construction-related impacts are
34 potentially greater, while the permanent agricultural and associated environmental justice
35 impacts and biological, aesthetic, and water quality benefits are potentially less than those of the
36 proposed action.

37 The listed species only alternative (Alternative 3) would require the construction of a smaller
38 amount of conservation area, reducing the short-term, construction-related impacts from the
39 levels that would be caused by the proposed action. Unlike the no action alternative, the
40 construction of the conservation projects would still be a coordinated effort, focusing on
41 creating large size patches of integrated mosaics of vegetation. This approach would likely
42 involve fewer construction sites than would be required under the proposed action, but there
43 would still be the potential for significant unmitigable impacts to air quality and related

1 environmental justice impacts, depending on the location and size of the sites. Other
2 construction-related, short-term impacts would likely be less than those identified for the
3 proposed action. Effects on agricultural resources, land use, environmental justice (from noise
4 and loss of agricultural jobs), and socioeconomics would also likely be less since fewer acres of
5 existing agricultural land would be subject to conversion for conservation area use. As with the
6 proposed action, these effects would be less than significant. However, this alternative would
7 not provide the same level of long-term, beneficial impacts to biological and aesthetic resources
8 and water quality that are provided by the proposed action.

9 The off-site conservation alternative (Alternative 4) differs from the proposed action in the
10 location, but not the quantity, of the riparian and mesquite habitat that would be created. As a
11 result, the scope of short-term, construction-related impacts would be similar to those identified
12 for the proposed action, although transboundary and ITA impacts would not occur, and the
13 potential for short-term environmental justice impacts associated with air quality and noise and
14 long-term impacts associated with noise would be greatly lessened. The potential for
15 significant, unmitigable impacts to air quality remains, although the California air quality
16 standards would not be applicable to this alternative since none of the conservation areas for
17 riparian or marsh land cover types would be created in California. The environmental justice
18 impacts associated with noise and air quality would not occur in the off-site conservation areas
19 since the percentage of low-income and minority populations in these locations is less than in
20 the larger community of comparison; they would be associated only with the creation of 360
21 acres of backwaters. Effects to agricultural resources, land use, environmental justice (loss of
22 agricultural jobs), and socioeconomics would be similar to the proposed action, and less than
23 significant. Potential impacts to ITAs would be greatly lessened under this alternative because
24 they are not present in the off-site conservation areas, and impacts would occur only in the
25 areas where the 360 acres of backwaters would be created.

26 This alternative would provide the same long-term benefits to biological resources, aesthetic
27 resources, and water quality as the proposed action, but it has the potential to cause significant
28 unavoidable short- and long-term impacts to biological resources that are present at off-site
29 conservation areas (native common and sensitive fish inhabiting the Virgin and Muddy rivers)
30 that are not present in the planning area. These potential short- and long-term impacts to
31 biological resources offset the difference between this alternative and the proposed action with
32 respect to short-term air quality and associated environmental justice impacts, as well as
33 environmental impacts associated with noise since this impact would be feasibly mitigable.
34 Alternative 4 would not result in transboundary impacts, but these are impacts that would
35 occur in a different location than those of the proposed action; they are not different types of
36 impacts. Alternative 4 also would not result in impacts to ITAs (with the exception of potential
37 impacts from backwater creation), but these, too, are feasibly mitigable.

38 **5.2 COMPARISON OF THE NO ACTION ALTERNATIVE AND ACTION** 39 **ALTERNATIVES**

40 As described in section 2.1.2, under the no action alternative (Alternative 2), the covered
41 activities described in the LCR MSCP BA and LCR MSCP HCP would likely be implemented,
42 but regulatory compliance would be required and applied on a case-by-case basis as each action

is considered and approved. In the absence of a comprehensive, coordinated conservation program, the following would be expected:

- It is unlikely that funding would be provided to maintain existing habitat that is not impacted by the individual projects.
- The individual project mitigation programs likely would not provide the regional wildfire suppression and law enforcement funding proposed in the Conservation Plan.
- Coordinated monitoring and adaptive management programs would not be implemented.
- Since each individual project would establish its own mitigation sites, it is likely that more maintenance and storage facilities would be required.
- More, smaller mitigation sites would be established, requiring more infrastructure (access roads and irrigation pipelines/canals and pump facilities).
- To the extent that the agencies undertaking the covered activities proceed with ESA compliance, there may be a reduced number of covered species because unlisted species likely would not be included.

Thus, the no action alternative would not result in a continuation of existing conditions. Its impacts generally would be similar to those of the action alternatives because similar conservation measures likely would be implemented, and differences in impacts typically would be a matter of degree rather than kind. Table 5.2-1, which follows Table 5.1-1 at the end of this chapter, compares the magnitude of the impacts of the action alternatives to those of no action. In general, the impacts that are directly associated with the amount of conservation area established (including beneficial impacts) would be comparable to those of Alternative 3 and less than those of Alternatives 1 and 4.

The no action alternative would result in similar types of construction-related impacts as the action alternatives. In some cases, the intensity of the impact would be comparable to Alternative 3 and less than under Alternatives 1 and 4 (e.g., short-term aesthetic impacts to conservation area establishment sites; impacts from erosion). In other cases (e.g., air quality, noise), short-term impacts would be greater because the lack of a comprehensive, coordinated effort could result in more, smaller projects, and the need to develop more infrastructure and support facilities. As noted above, this may reduce the effects to agricultural resources, land use, environmental justice (loss of agricultural jobs) and socioeconomics below those caused by the proposed action and Alternative 4 (off-site conservation).

Beneficial impacts to aesthetic resources and water quality would be less than under Alternatives 1 and 4 because a smaller amount of conservation area would be created and comparable to those of Alternative 3 because similar amounts of conservation area would be created. Beneficial impacts to biological resources that are directly linked to the amount of conservation area created would be less than under Alternatives 1 and 4 and comparable to Alternative 3. Beneficial impacts of all action alternatives to biological resources would be reduced under the no action alternative because funding would not be provided to maintain existing habitat that is not impacted by the individual projects, regional wildfire suppression

1 and law enforcement funding likely would not be provided, and coordinated monitoring and
2 adaptive management programs would not be implemented.

3 Long-term noise from pump operation could be slightly greater than under the proposed action
4 and Alternative 4 because conservation measures would be more likely to be implemented
5 closer to developed areas and approximately equal to those of Alternative 3.

6 The no action alternative could include conservation in the off-site conservation areas. To the
7 extent that this occurred, short-term impacts on environmental justice associated with air
8 quality and noise, ITAs, and transboundary impacts identified for Alternatives 1 and 3 would
9 be reduced because these impacts would not occur in the off-site areas. Impacts to native fish
10 species along the Virgin and Muddy rivers could occur under this alternative, as is the case for
11 Alternative 4. This would represent a greater impact to biological resources than identified for
12 Alternatives 2 or 3.

13 **5.3 ENVIRONMENTALLY PREFERRED ALTERNATIVE**

14 Both NEPA and CEQA require identification of the environmentally preferred (or
15 environmentally superior) alternative. This section discusses the comparisons of the potential
16 effects of the alternatives.

17 As discussed above, each of the alternatives would have the potential to cause short-term,
18 construction-related impacts to many of the resources analyzed in this EIS/EIR. Although these
19 potential impacts may be less for Alternatives 2 (no action), and 3 (listed species only), they can
20 be mitigated to less than significant levels for all of the alternatives, except for the potential
21 impacts to air quality and associated environmental justice impacts. Some impacts would not
22 occur or would be reduced under Alternatives 2 and 4 because ITAs are not present in the off-
23 site conservation areas, and transboundary impacts and environmental justice impacts
24 associated with noise and air quality would not occur as a result of construction in these off-site
25 areas. These impacts would all be feasibly mitigable with the exception of air quality-related
26 impacts, as noted above. Depending on the location and size of conservation project sites, there
27 may be significant air quality impacts that cannot be mitigated to a less than significant level,
28 and this potential exists for each alternative, although the associated environmental justice
29 impacts would be greatly reduced under Alternative 4, and the transboundary impacts would
30 be avoided. To the extent that conservation occurred in the off-site conservation areas as part of
31 Alternative 2, these impacts would be reduced or avoided as well.

32 Similarly, each of the alternatives could cause long-term impacts through ongoing maintenance
33 of created habitat. These impacts would be less than significant for each alternative, with the
34 exception of air quality impacts from prescribed burns, which could be unavoidable for the
35 largest burns. The effects to agricultural resources, land use, environmental justice, and
36 socioeconomics would be less for Alternatives 2 and 3, although environmental justice impacts
37 associated with noise and air quality could be lessened under Alternative 2 to the extent that
38 conservation occurred in the off-site conservation areas. Alternatives 2 and 3, however, would
39 not provide the same level of long-term biological, aesthetic, or water quality benefits as the
40 proposed action or Alternative 4 (off-site conservation). These long-term benefits would offset
41 the less than significant short-term effects to other resources. Alternative 4, like Alternative 2,
42 would potentially cause greater biological impacts than the proposed action, which would

1 offset the equal benefit that it would provide to these resources. These long-term biological
2 beneficial impacts would outweigh the short-term air quality and environmental justice impacts
3 and the feasibly mitigable environmental justice impact associated with noise from pumps that
4 would be avoided under Alternative 4.

5 Overall, most of the short-term, construction-related impacts that would potentially occur
6 under each alternative can be mitigated to less than significant levels. The potentially
7 significant air quality impacts would exist for all the alternatives and do not provide a basis for
8 distinguishing between them, although short-term air quality impacts associated with
9 environmental justice would be lessened under Alternative 4, and transboundary impacts,
10 which are not considered substantial impacts, would not occur. The long-term impacts, with
11 the implementation of the mitigation measures identified in this EIS/EIR, would similarly be
12 less than significant for all the alternatives. The primary difference between the alternatives lies
13 with the level of benefit that is provided to the biological resources. Both Alternatives 1 and 4
14 provide the same level of benefit, but Alternative 4 poses the potential for short- and long-term
15 impacts to endangered fish species that inhabit the Virgin and Muddy rivers where the off-site
16 conservation projects would be sited. Therefore, Alternative 1 is the environmentally preferred
17 alternative.

Table 5.1-1. Comparison of Impacts of Project Alternatives

<i>Impacts of the Proposed Action (Alternative 1)</i>	MAGNITUDE OF IMPACTS OF PROJECT ALTERNATIVES COMPARED TO THE PROPOSED ACTION ¹		
	<i>Alternative 2 No Action</i>	<i>Alternative 3 Listed Species Only</i>	<i>Alternative 4 Off-Site Conservation</i>
AESTHETICS			
AESTH-1: Construction/maintenance activities would temporarily lessen the visual quality of the conservation area establishment sites located on or near visually sensitive resources (<i>less than significant impact</i>).	=	<	=
AESTH-2: The construction of field facilities and fish-rearing facilities could be required, which could alter the visual quality of the selected sites (<i>less than significant impact</i>).	>	=	=
AESTH-3: Conservation area establishment would return sites to a more natural appearance (<i>beneficial impact</i>).	<	<	=
AGRICULTURAL RESOURCES			
AG-1: Important Farmland could be converted to a nonagricultural use (<i>less than significant impact</i>).	<	<	=
AG-2: Waterfowl attracted to established backwaters and marshes could destroy crops grown on adjacent farmland (<i>less than significant impact</i>).	=	=	=
AG-3: Runoff from established conservation areas could alter the slopes of adjoining laser-leveled fields (<i>significant impact</i>).	<	<	=
AG-4: Covered species attracted to established conservation areas could disperse to other lands within the planning area (<i>less than significant impact</i>).	<	<	=
AIR QUALITY			
AQ-1: The use of fossil fuel-fired construction equipment during construction, maintenance, and operational activities would result in intermittent combustive emissions that would not violate any air quality standard or contribute substantially to an existing or projected air quality violation (<i>less than significant impact</i>).	=	<	=
AQ-2: The development of the largest projects would produce fugitive dust emissions that could exceed an ambient 24-hour PM10 standard (<i>significant impact</i>).	=	<	=
AQ-3: Emissions from the largest prescribed burns during terrestrial vegetation establishment or maintenance activities would produce emissions that could contribute to an exceedance of an ambient 24-hour PM10 standard (<i>significant impact</i>).	=	<	=
AQ-4: Air emissions from proposed conservation area establishment activities and facility construction could exceed the MDAQMD daily NO _x or PM10 emission significance thresholds, which would result in a cumulatively considerable net increase of a nonattainment pollutant (<i>significant impact</i>).	=	<	Not Applicable

Table 5.1-1. Comparison of Impacts of Project Alternatives (continued)

Impacts of the Proposed Action (Alternative 1)	ACTION ¹		
	Alternative 2 No Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
AIR QUALITY (CONTINUED)			
AQ-5: Air emissions from the proposed conservation area establishment activities would not expose sensitive receptors to substantial pollutant concentrations (<i>less than significant impact</i>).	=	<	=
AQ-6: Air emissions from the proposed conservation area establishment activities would not create objectionable odors that affect a substantial number of people (<i>less than significant impact</i>).	=	<	=
BIOLOGICAL RESOURCES ²			
BIO-1: Issuance of the section 10(a)(1)(B) permit would authorize the incidental take of up to 27 covered species from implementation of both the covered activities and the Conservation Plan (<i>less than significant impact</i>).	Not Applicable	<	=
BIO-2: The establishment of 7,260 acres of cottonwood-willow and honey mesquite land cover would increase the extent of cottonwood-willow riparian forest and mesquite woodland sensitive communities (<i>beneficial</i>).	<	<	=
BIO-3: Clearing, grading, planting, and site maintenance during conversion of agricultural lands to cottonwood-willow and/or honey mesquite land cover types would result in the elimination of existing low value habitat used by resident and migratory wildlife, removal of weedy vegetation and crops, alteration of habitat characteristics through changes in local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	<	<	=
BIO-4: Clearing, grading, planting, and site maintenance during conversion of undeveloped lands (primarily saltcedar) to cottonwood-willow and/or honey mesquite land cover types would result in the elimination of existing non-native vegetation and the habitat it provides for wildlife, short-term effects on habitat characteristics from alteration of local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	<	<	=
BIO-5: Clearing, grading, planting, and site maintenance during establishment of marsh would result in the long-term elimination of existing vegetation and the habitat it provides for wildlife, alteration of habitat conditions through changes in local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	<	<	=
BIO-6: Clearing, grading, and site maintenance during establishment of backwaters would result in the long-term elimination of existing vegetation and the habitat it provides for wildlife, alteration of habitat conditions through changes in local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant or significant short-term impacts; beneficial long-term impacts</i>).	<	<	=
BIO-7: Maintenance of established habitats would result in the removal of invasive non-native vegetation, alteration of habitat characteristics through changes in local hydrology, and short-term elimination or displacement of resident wildlife (<i>less than significant short-term impacts; less than significant or beneficial long-term impacts</i>).	<	<	=

Table 5.1-1. Comparison of Impacts of Project Alternatives (continued)

Impacts of the Proposed Action (Alternative 1)	ACTION ¹		
	Alternative 2 No Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
BIOLOGICAL RESOURCES ²			
BIO-8: Population enhancement activities for covered fish and bird species could adversely affect existing individuals or populations of covered or sensitive species (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	<	<	=
BIO-9: Native land cover type establishment and maintenance could temporarily affect wetlands and waters of the U.S. (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	<	<	=
CULTURAL AND HISTORIC RESOURCES			
CULT-1: Disturbance of the ground surface could directly or indirectly disturb or destroy significant archaeological or historical resources, particularly in undeveloped or previously undisturbed areas (<i>significant impact</i>).	=	<	=
CULT-2: Cultural resources may be affected by unauthorized artifact collection during construction or by a lack of awareness of cultural resource mitigation measures on the part of construction personnel (<i>significant impact</i>).	=	<	=
ENERGY AND DEPLETABLE RESOURCES			
Minor impact associated with use of diesel fuel and electrical power during construction and operations. Negligible impact to hydropower production due to consumptive use of water for conservation areas.	=	=	=
ENVIRONMENTAL JUSTICE			
EJ-1: Significant, short-term air quality impacts from construction activities and prescribed burns in or near agricultural areas could result in disproportionate impacts to minority and low-income populations.	< ³	<	< ³
EJ-2: Noise from construction and pumps that exceeded local standards could disproportionately affect minority and low-income populations.	< ³	<	< ³
EJ-3: If agricultural land were converted to conservation areas, the loss of agricultural jobs would disproportionately affect minority and low-income populations.	<	<	=
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1: The use of pesticides, lubricants, fuels, and other hazardous materials during construction, operations, and maintenance could result in localized spills, which could create a hazard to the environment (<i>less than significant impact</i>).	>	<	=
HAZ-2: The increase in riparian and backwater areas could result in an increase in vectors (<i>less than significant impact</i>).	>	<	=
HAZ-3: Construction activities could cause wildfires (<i>less than significant impact</i>).	>	<	=
HAZ-4: Fire used as a construction and maintenance tool could escape control and become a wildland fire (<i>less than significant impact</i>).	<	<	=

Table 5.1-1. Comparison of Impacts of Project Alternatives (continued)

Impacts of the Proposed Action (Alternative 1)	ACTION ¹		
	Alternative 2 No Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-5: Conservation area establishment actions implemented within an Accident Potential Zone of an airport or near a private airstrip could cause a comparatively minor increase in bird populations (<i>less than significant impact</i>).	<	<	Not Applicable
HYDROLOGY AND WATER QUALITY			
HYDRO-1: Habitat installation activities could result in erosion-induced siltation (<i>less than significant impact</i>).	<	<	=
HYDRO-2: Habitat establishment could have a short-term adverse effect to water quality if irrigation mobilized (released) pesticides, salts, or other contaminants (<i>less than significant impact</i>).	<	<	=
HYDRO-3: Water quality in created or restored backwaters and marshes could be affected by increasing concentrations of various naturally occurring and man-made chemicals (both in the soil and the water column) that result from evaporation of water (<i>less than significant impact</i>).	=	=	=
HYDRO-4: Conservation area establishment would result in a long-term improvement to water quality if agricultural land were used (<i>beneficial impact</i>).	<	<	=
INDIAN TRUST ASSETS			
ITA-1: Implementing conservation measures on tribal land could result in changes to all classes of ITAs.	< 4	<	<4
LAND USE			
No significant impacts specific to land use were identified, although significant land use conflicts were identified in the agricultural resources and noise analyses (Impacts AG-3, AG-4, NOI-1, and NOI-2).	<	<	=
NOISE			
NOI-1: Construction activities could cause a temporary, substantial increase in ambient noise levels that could exceed local standards if construction occurred in proximity to noise-sensitive receptors (<i>significant impact</i>).	>	<	=
NOI-2: Pumps located near noise-sensitive receptors could cause a substantial increase in ambient noise levels or exceed regulatory thresholds (<i>significant impact</i>).	>	<	=
POPULATION AND HOUSING			
No impact on population or housing.	=	=	=

Table 5.1-1. Comparison of Impacts of Project Alternatives (continued)

<i>Impacts of the Proposed Action (Alternative 1)</i>	ACTION ¹		
	<i>Alternative 2 No Action</i>	<i>Alternative 3 Listed Species Only</i>	<i>Alternative 4 Off-Site Conservation</i>
PUBLIC SERVICES AND UTILITIES			
Minimal impacts to water treatment, storm drainage, and water supply from the potential construction and operation of two field facilities. Minor impacts to landfill capacity from construction and operations.	=	=	=
RECREATION			
REC-1: The implementation of certain conservation measures could result in the loss of recreational opportunities (<i>less than significant impact</i>).	<	<	=
SOCIOECONOMICS			
SOC-1: Agricultural jobs would be lost if agricultural land were converted to conservation areas.	<	<	=
SOC-2: Agricultural-related revenue would be lost if agricultural land were converted to conservation areas.	<	<	=
SOC-3: Local property tax revenues could be reduced if privately owned land were leased or acquired by the Federal or state participants in the LCR MSCP.	<	<	=
SOC-4: Local sales tax from the purchase of products related to agricultural uses would be reduced if privately owned agricultural land were placed in public ownership.	<	<	=
TOPOGRAPHY, GEOLOGY, SOILS, AND MINERAL RESOURCES			
GEO-1: Activities associated with conservation area establishment could result in erosion-induced siltation of the Colorado River (<i>less than significant impact</i>).	<	<	=
TRANSBOUNDARY IMPACTS			
TRANS-1: PM ₁₀ and combustive emissions from the construction and maintenance of created conservation areas in Reach 7 could disperse to Mexico.	< ⁵	<	Not Applicable
TRANSPORTATION			
Minor impact from construction traffic.	=	=	=

Table 5.1-1. Comparison of Impacts of Project Alternatives (continued)

<i>Impacts of the Proposed Action (Alternative 1)</i>	ACTION ¹		
	<i>Alternative 2 No Action</i>	<i>Alternative 3 Listed Species Only</i>	<i>Alternative 4 Off-Site Conservation</i>
<p>1 < Impact is less than the proposed action. > Impact is greater than the proposed action. = Impact is equal to the proposed action.</p> <p>2 Impacts BIO-9 and BIO-10 are not included here since they are not impacts of the proposed action and would only occur in the off-site alternative areas (under Alternatives 2 and 4).</p> <p>3 Air quality and noise impacts would not disproportionately affect minority and low-income populations in the off-site conservation areas. Under Alternative 2, these impacts would occur only to the extent that conservation measures were implemented in the planning area. Under Alternative 4, impacts would be associated only with the creation of 360 acres of backwaters along the LCR.</p> <p>4 No tribal lands or ITAs are present in any of the off-site conservation areas. Under Alternative 2, these impacts would occur only to the extent that conservation measures were implemented in the planning area. Under Alternative 4, impacts would be associated only with the creation of 360 acres of backwaters along the LCR.</p> <p>5 Transboundary impacts would not occur in any of the off-site conservation areas because these sites are not sufficiently close to Mexico. Under Alternative 2, these impacts would occur only to the extent that conservation measures were implemented in the planning area. Under Alternative 4, no transboundary impacts would occur because no construction would occur in Reach 7 of the LCR.</p>			

Table 5.2-1. Comparison of Project Alternatives to No Action

Impacts of No Action (Alternative 2)	MAGNITUDE OF IMPACTS OF PROJECT ALTERNATIVES COMPARED TO NO ACTION ¹		
	Alternative 1 Proposed Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
AESTHETICS			
AESTH-1: Construction/maintenance activities would temporarily lessen the visual quality of the conservation area establishment sites located on or near visually sensitive resources (<i>less than significant impact</i>).	>	=	>
AESTH-2: The construction of field facilities and fish-rearing facilities could be required, which could alter the visual quality of the selected sites (<i>less than significant impact</i>).	<	<	<
AESTH-3: Conservation area establishment would return sites to a more natural appearance (<i>beneficial impact</i>).	>	=	>
AGRICULTURAL RESOURCES			
AG-1: Important Farmland could be converted to a nonagricultural use (<i>less than significant impact</i>).	>	=	>
AG-2: Waterfowl attracted to established backwaters and marshes could destroy crops grown on adjacent farmland (<i>less than significant impact</i>).	=	=	=
AG-3: Runoff from established conservation areas could alter the slopes of adjoining laser-leveled fields (<i>significant impact</i>).	>	=	>
AG-4: Covered species attracted to established conservation areas could disperse to other lands within the planning area (<i>less than significant impact</i>).	>	=	>
AIR QUALITY			
AQ-1: The use of fossil fuel-fired construction equipment during construction, maintenance, and operational activities would result in intermittent combustive emissions that would not violate any air quality standard or contribute substantially to an existing or projected air quality violation (<i>less than significant impact</i>).	=	<	=
AQ-2: The development of the largest projects would produce fugitive dust emissions that could exceed an ambient 24-hour PM10 standard (<i>significant impact</i>).	=	<	=
AQ-3: Emissions from the largest prescribed burns during terrestrial vegetation establishment or maintenance activities would produce emissions that could contribute to an exceedance of an ambient 24-hour PM10 standard (<i>significant impact</i>).	=	<	=
AQ-4: Air emissions from proposed conservation area establishment activities and facility construction could exceed the MDAQMD daily NO _x or PM10 emission significance thresholds, which would result in a cumulatively considerable net increase of a nonattainment pollutant (<i>significant impact</i>).	=	<	Not Applicable
AQ-5: Air emissions from the proposed conservation area establishment activities would not expose sensitive receptors to substantial pollutant concentrations (<i>less than significant impact</i>).	=	<	=

Table 5.2-1. Comparison of Project Alternatives to No Action (continued)

Impacts of No Action (Alternative 2)	MAGNITUDE OF IMPACTS OF PROJECT ALTERNATIVES COMPARED TO NO ACTION ¹		
	Alternative 1 Proposed Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
AIR QUALITY			
AQ-6: Air emissions from the proposed conservation area establishment activities would not create objectionable odors that affect a substantial number of people (<i>less than significant impact</i>).	=	<	=
BIOLOGICAL RESOURCES ²			
BIO-2: The establishment of 7,260 acres of cottonwood-willow and honey mesquite land cover would increase the extent of cottonwood-willow riparian forest and mesquite woodland sensitive communities (<i>beneficial</i>).	>	=	>
BIO-3: Clearing, grading, planting, and site maintenance during conversion of agricultural lands to cottonwood-willow and/or honey mesquite land cover types would result in the elimination of existing low value habitat used by resident and migratory wildlife, removal of weedy vegetation and crops, alteration of habitat characteristics through changes in local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	>	=	>
BIO-4: Clearing, grading, planting, and site maintenance during conversion of undeveloped lands (primarily saltcedar) to cottonwood-willow and/or honey mesquite land cover types would result in the elimination of existing non-native vegetation and the habitat it provides for wildlife, short-term effects on habitat characteristics from alteration of local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	>	=	>
BIO-5: Clearing, grading, planting, and site maintenance during establishment of marsh would result in the long-term elimination of existing vegetation and the habitat it provides for wildlife, alteration of habitat conditions through changes in local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	>	=	>
BIO-6: Clearing, grading, and site maintenance during establishment of backwaters would result in the long-term elimination of existing vegetation and the habitat it provides for wildlife, alteration of habitat conditions through changes in local hydrology and exposure of soil to erosion, and elimination or displacement of resident wildlife (<i>less than significant or significant short-term impacts; beneficial long-term impacts</i>).	>	=	>
BIO-7: Maintenance of established habitats would result in the removal of invasive non-native vegetation, alteration of habitat characteristics through changes in local hydrology, and short-term elimination or displacement of resident wildlife (<i>less than significant short-term impacts; less than significant or beneficial long-term impacts</i>).	>	=	>

Table 5.2-1. Comparison of Project Alternatives to No Action (continued)

Impacts of No Action (Alternative 2)	MAGNITUDE OF IMPACTS OF PROJECT ALTERNATIVES COMPARED TO NO ACTION ¹		
	Alternative 1 Proposed Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
BIOLOGICAL RESOURCES			
BIO-8: Population enhancement activities for covered fish and bird species could adversely affect existing individuals or populations of covered or sensitive species (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	=	=	=
BIO-9: Native land cover type establishment and maintenance could temporarily affect wetlands and waters of the U.S (<i>less than significant short-term impacts; beneficial long-term impacts</i>).	>	=	>
BIO-10: Land cover type establishment and maintenance activities could result in periodic short-term impacts on sensitive and common native fishes inhabiting the Virgin and Muddy rivers (<i>less than significant impact</i>).	Not Applicable	Not Applicable	=
BIO-11: Construction to establish/enhance native land cover types could result in the long-term loss or degradation of sensitive native fish habitats in the Virgin and Muddy rivers (<i>significant impact</i>).	Not Applicable	Not Applicable	=
CULTURAL AND HISTORIC RESOURCES			
CULT-1: Disturbance of the ground surface could directly or indirectly disturb or destroy significant archaeological or historical resources, particularly in undeveloped or previously undisturbed areas (<i>significant impact</i>).	=	<	=
CULT-2 Cultural resources may be affected by unauthorized artifact collection during construction or by a lack of awareness of cultural resource mitigation measures on the part of construction personnel (<i>significant impact</i>).	=	<	=
ENERGY AND DEPLETABLE RESOURCES			
Minor impact associated with use of diesel fuel and electrical power during construction and operations. Negligible impact to hydropower production due to consumptive use of water for conservation areas.	=	=	=
ENVIRONMENTAL JUSTICE			
EJ-1: Significant, short-term air quality impacts from construction activities and prescribed burns in or near agricultural areas could result in disproportionate impacts to minority and low-income populations. ³	=	=	< ³
EJ-2: Noise from construction and pumps that exceeded local standards could disproportionately affect minority and low-income populations. ³	<	=	< ³
EJ-3: If agricultural land were converted to conservation areas, the loss of agricultural jobs would disproportionately affect minority and low-income populations.	>	=	>
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1: The use of pesticides, lubricants, fuels, and other hazardous materials during construction, operations, and maintenance could result in localized spills, which could create a hazard to the environment (<i>less than significant impact</i>).	<	<	<

Table 5.2-1. Comparison of Project Alternatives to No Action (continued)

Impacts of No Action (Alternative 2)	MAGNITUDE OF IMPACTS OF PROJECT ALTERNATIVES COMPARED TO NO ACTION ¹		
	Alternative 1 Proposed Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-2: The increase in riparian and backwater areas could result in an increase in vectors (<i>less than significant impact</i>).	<	<	<
HAZ-3: Construction activities could cause wildfires (<i>less than significant impact</i>).	<	=	<
HAZ-4: Fire used as a construction and maintenance tool could escape control and become a wildland fire (<i>less than significant impact</i>).	>	<	>
HAZ-5: Conservation area establishment actions implemented within an Accident Potential Zone of an airport or near a private airstrip could cause a comparatively minor increase in bird populations (<i>less than significant impact</i>).	>	<	Not Applicable
HYDROLOGY AND WATER QUALITY			
HYDRO-1: Habitat establishment activities could result in erosion-induced siltation (<i>less than significant impact</i>).	>	=	>
HYDRO-2: Habitat establishment could have a short-term adverse effect to water quality if irrigation mobilized (released) pesticides, salts, or other contaminants (<i>less than significant impact</i>).	>	=	>
HYDRO-3: Water quality in created or restored backwaters and marshes could be affected by increasing concentrations of various naturally occurring and man-made chemicals (both in the soil and the water column) that result from evaporation of water (<i>less than significant impact</i>).	=	=	=
HYDRO-4: Conservation area establishment would result in a long-term improvement to water quality if agricultural land were used (<i>beneficial impact</i>).	>	=	>
INDIAN TRUST ASSETS			
ITA-1: Implementing conservation measures on tribal land could result in changes to all classes of ITAs. ⁴	>	=	< ³
LAND USE			
No significant impacts specific to land use were identified, although significant land use conflicts were identified in the agricultural resources and noise analyses (Impacts AG-3, AG-4, NOI-1, and NOI-2).	>	=	>
NOISE			
NOI-1: Construction activities could cause a temporary, substantial increase in ambient noise levels that could exceed local standards if construction occurred in proximity to noise-sensitive receptors (<i>significant impact</i>).	<	=	<
NOI-2: Pumps located near noise-sensitive receptors could cause a substantial increase in ambient noise levels or exceed regulatory thresholds (<i>significant impact</i>).	<	=	<

Table 5.2-1. Comparison of Project Alternatives to No Action (continued)

Impacts of No Action (Alternative 2)	MAGNITUDE OF IMPACTS OF PROJECT ALTERNATIVES COMPARED TO NO ACTION ¹		
	Alternative 1 Proposed Action	Alternative 3 Listed Species Only	Alternative 4 Off-Site Conservation
POPULATION AND HOUSING			
No impact on population or housing.	=	=	=
PUBLIC SERVICES AND UTILITIES			
Minimal impacts to water treatment, storm drainage, and water supply from the potential construction and operation of two field facilities. Minor impacts to landfill capacity from construction and operations.	=	=	=
RECREATION			
REC-1: The implementation of certain conservation measures could result in the loss of recreational opportunities (<i>less than significant impact</i>).	>	=	>
SOCIOECONOMICS			
SOC-1: Agricultural jobs would be lost if agricultural land were converted to conservation areas.	>	=	>
SOC-2: Agricultural-related revenue would be lost if agricultural land were converted to conservation areas.	>	=	>
SOC-3: Local property tax revenues could be reduced if privately owned land were leased or acquired by the Federal or state participants in the LCR MSCP.	>	=	>
SOC-4: Local sales tax from the purchase of products related to agricultural uses would be reduced if privately owned agricultural land were placed in public ownership.	>	=	>
TOPOGRAPHY, GEOLOGY, SOILS, AND MINERAL RESOURCES			
GEO-1: Activities associated with conservation area establishment could result in erosion-induced siltation of the Colorado River (<i>less than significant impact</i>).	>	=	>
TRANSBOUNDARY IMPACTS			
TRANS-1: PM10 and combusive emissions from the construction and maintenance of created conservation areas in Reach 7 could disperse to Mexico. ⁵	>	=	Not Applicable
TRANSPORTATION			
Minor impact from construction traffic.	=	=	=

Table 5.2-1. Comparison of Project Alternatives to No Action (continued)

<i>Impacts of No Action (Alternative 2)</i>	MAGNITUDE OF IMPACTS OF PROJECT ALTERNATIVES COMPARED TO NO ACTION ¹		
	<i>Alternative 1 Proposed Action</i>	<i>Alternative 3 Listed Species Only</i>	<i>Alternative 4 Off-Site Conservation</i>
1 < Impact is less than the proposed action. > Impact is greater than the proposed action. = Impact is equal to the proposed action.			
2 Impact BIO-1 is not applicable to the No Action Alternative because no section 10(a)(1)(B) permit would be issued and the take associated with the permit would not occur.			
3 Air quality and noise impacts would not disproportionately affect minority and low-income populations in the off-site conservation areas. Under Alternative 2, these impacts would occur only to the extent that conservation measures were implemented in the planning area. Under Alternative 4, impacts would be associated only with the creation of 360 acres of backwaters along the LCR.			
4 No tribal lands or ITAs are present in any of the off-site conservation areas. Under Alternative 2, these impacts would occur only to the extent that conservation measures were implemented in the planning area. Under Alternative 4, impacts would be associated only with the creation of 360 acres of backwaters along the LCR.			
5 Transboundary impacts would not occur in any of the off-site conservation areas because these sites are not sufficiently close to Mexico. Under Alternative 2, these impacts would occur only to the extent that conservation measures were implemented in the planning area. Under Alternative 4, no transboundary impacts would occur because no construction would occur in Reach 7 of the LCR.			